

Jet Propulsion Laboratory California Institute of Technology

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August 6, 2002

Refer to: 930-02-009-ESB:lc

(Revised)

TO: Distribution

FROM: Eugene S. Burke

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held

July 18, 2002.

DUE TO THE AUGUST 13

Resource Allocation Review Board (RARB)
THERE WILL BE NO JURAP MEETING
HELD IN AUGUST

NEXT JURAP MEETING: Thursday, September 19, 2002 JPL Bldg. 303, Room 411 – 1:00 p.m.

Attendees:

Andujo, A.	Compton, B.	Kim, K.	Slade, M.
Arroyo, B.	Doody, D.	Lacey, N.	Smith, T.
Baldwin, J.	Espinueva, R.	Martinez, K.	Tay, P.
Bartoo, R.	Frazier, B.	Medina, M.	Tham, L.
Beyer, P.	Gage, K.	Morris, D.	Thompson, T.
Brymer, B.	Hall, J.	No, S.	Yetter, B.
Buckley, J.	Kehrbaum, J.	Poon, S.	Yetter, K.

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts. The last regular meeting was held on April 18, 2001 at the Jet Propulsion Laboratory.

Introductory Remarks / Conflict Resolutions – G. Burke

G. Burke reported on his trip to NASA HQ for the NASA Science Review meeting. Discussions were held to assist in contention resolution, as well as define launch requirements for the 2003-2004 period. Two new 930 employees were introduced to the JURAP Committee, John Baldwin, a developer brought in to work with the software development team and Art Andujo, a new member of the RAP team.

R. Bartoo reported that the ERBS spacecraft is continuing to deteriorate. The spacecraft batteries are extremely low. Project personnel are considering declaring a spacecraft emergency. Consideration is also being given to scheduling a few 12 to 15 minute emergency supports between DOY 208-211 to perform an aero braking maneuver. Cindee Abramo will be asked to assist in the scheduling of these possible supports.

SPECIAL REPORT: Project Interface Tests (PITs) – A. Landon

This talk focused on the NSP implementation, specifically at DSS-24. Mr. Landon requested the project scheduling offices to plan for Project Interface Tests (PIT) and demonstration passes as soon as possible, in an effort to evaluate NSP performance and capabilities. Also cited was the need for continued support by projects to the 26Meter Automation task.

The question of spacecraft priority to NSP testing was raised. Mr. Landon stated that the only priority at this time is for active spacecraft; the goal is to transition all live spacecraft as soon as possible.

The presentation material for the Network Simplification Project and the 26-Meter D3.1 (from Art Landon) have been added to the Minutes.

RARB Action Items – D. Morris

All Action Items are closed except the following:

Action Item 2: Investigate and negotiate the feasibility of alternate assets providing current

DSN Catalog Maintenance and Enhancement (CAT M&E) radio sources.

Response: This issue requires further discussion with Rich Miller regarding its relevancy.

Action Item 12: Identify Risk Posture for individual mission's key events to plan steps the DSN

can do to mitigate foreseeable anomalies (e.g., spacecraft emergency, station

outages, MCD3 contention, etc.).

Response: Still open.

Updated charts have now been included in the Minutes.

Resource Analysis Team - K. Kim

Modifications to the DSN User List were made to reflect the name change to "DSN VLBI Clock Sync and Catalog M&E" to "Reference Frame Calibration"

The DSN Resource Matrix has been modified to reflect the available date of the NSP at DSS-24 of 12/23/02. *Note:* All other hi-lighted entries reflect changes made since the February 2002 RARB.

Mid-range schedule Weeks 33 - 36 were released to DSN on 06/24/2002, Weeks 37 - 40 are due to be released on 07/29/2002. Conflict negotiations will begin 07/26/2002 for Weeks 01 - 04 2003.

DSS Downtime Forecast -N. Lacey for J. Valencia

There have been many changes made to the DSN Major Downtime schedule since the May JURAP meeting. The DSN Major Antenna Downtime Schedule will be updated on July 23rd or 24th to the RAP website. Mr. Lacey requests that all project schedulers review the RARB contentions and recommendations to resolve contention in the preliminary phase. Notification will be sent once the update is posted.

The material presented at the JURAP was not submitted for inclusion in the Minutes.

DSN Operations – J. Hodder

There was no presentation given at this month's JURAP.

Goldstone Solar System Radar – M. Slade

Mr. Slade reports that the GSSR project successfully observed the Near-Earth Asteroid 1992FE. New observations are being planned in conjunction with the Green Bank 100m telescope (GBT) to perform observations of Mercury in support of the MESSENGER project. Project schedulers have submitted a request for four, 4-hour observations at Goldstone from January 5, 2003 to January 23, 2003. The request has already been submitted to Kathryn Martinez, so far contentions with two downtime periods have been noted and will require negotiation.

Radio Astronomy / Special Activities – G. Martinez

There was no presentation given at this month's JURAP, but the presentation material was submitted to include in the Minutes.

JURAP Science Advisor – E. Smith

There was no presentation given at this month's JURAP.

FLIGHT PROJECTS REPORTS

Mars Program Office:

MGS, M010 – P. Poon

The MGS spacecraft has reached a milestone of 15,000 mapping orbits. E. Brower submitted presentation material for inclusion in the Minutes.

The Mars Odyssey spacecraft has successfully deployed its boom that holds the gamma ray spectrometer sensor head instrument.

Mars Express – T. Thompson

Mr. Thompson reports that all work continues as planned and spacecraft testing continues.

Ulysses – B. Brymer

Mr. Brymer reports that all operations are nominal.

Galileo – B. Compton

Mr. Compton reports that the Galileo Orbiter is healthy. The spacecraft has entered solar conjunction. Prior to entering the conjunction the project commanded the tape recorder to continuously move slowly up and down the entire length of the tape in small steps, traversing all four tracks, to prevent the tape from sticking to the recorder heads throughout the three-week conjunction.

Stardust - R. Ryan

Mr. Ryan reports that all subsystems are normal and that preparations continue for the encounter test at Annefrank. One support at DSS-14 became downlink-only due to a power interruption in the DSN Control Center in building 230.

Pioneer 10 - R. Ryan

Mr. Ryan reports the Pioneer 10 spacecraft is healthy although battery levels are very low. During the most recent support, the project was unable to acquire Telemetry data because the station could not hold a downlink lock due to extremely low signal levels, reported at $-185 \, \mathrm{dBm}$. The project is weighing the risks of performing a CONSCAN maneuver to better orient the spacecraft's Earth Look Angle.

Chandra – K. Gage

Mr. Gage reports the observatory is healthy and that most of the observing schedule was completed as planned. The project has scheduled an NSP test pass as an additional support as to prevent any loss of data. NSP testing completed so far has yielded excellent results. The project performed an IRU Calibration update July 17th, and testing thus far has resulted in better spacecraft performance. The project expresses it's appreciation of the scheduling team's efforts in the planning of special support times.

Voyager - J. Hall

Mr. Hall reports that the Voyager 1 and 2 spacecrafts are healthy and continue to perform as planned. Mr. Hall states that all spacecraft support has been great, with the exception of DSS-43, which has suffered some commanding problems due to CPA interface issues.

Cassini – D. Doody

Mr. Doody reports that the Cassini spacecraft is in an excellent state of health and is operating normally, the spacecraft is currently in its Space Science Cruise Phase. The project has suffered DSN Ka-Band data loss of 71% during the recent Radio Science Superior Conjunction Performed. The project has scheduled NSP testing.

ISTP, WIND, POLAR, SOHO, GEOTAIL, Cluster II – A. Chang

There was no presentation given at this month's JURAP.

MAP, ACE, and IMAGE, Genesis – S. Waldherr

There was no presentation given at this month's JURAP.





Network Simplification Project (NSP) Testing

Art Landon 7/18/02

INTERPLANETARY NETWORK DIRECTORATE DEEP SPACE MISSION SYSTEM (DSMS)





Agenda

- NSP overview
- Deployment plans
- Project Interface Testing (PIT)
- PIT /Demos scheduling process





NSP overview

 The Network Simplification Project (NSP) is comprised of a DSN downlink consolidation task, a DSN uplink consolidation task, an AMMOS tracking data delivery subsystem task and a Mission Monitor Data replacement task.





Deployment plans

- The NSP task approach is rather unique in that the implementation is planned as a turnkey to operations vise a parallel operational approach as has been used past with similar implementations.
- Because this is a turnkey operation there was a need to come up with an innovative and out of the box approach for interface and mission transition.
- The general philosophy is to interface test as much as possible at DTF-21 and DSS-26 (NSP test bed).
 - Currently this test window is 15 October 02 through 22 November 02.





Deployment plans

- Project Interface Tests (PITs) are planned to be conducted at DTF-21 or DSS-26 using project provided TLM SIM files as a source.
 - Live spacecraft downlink telemetry can be used as a source at DSS-26
- Since there is a capability at GDSCC to provide the I/F signal from any front end to the DSS-26 NSP test bed, we plan to utilize this feature to provide live S/C data to the different flight projects and to provide the project and NSP test team data collection path via CDR.
- There is also a capability to uplink at the different front ends.





Deployment plans

- The first station to implement the NSP is DSS-24.
- We plan to conduct PITs and Engineering demos starting in early December 02 (12/02/02 12/22/02) for the NSP implementation at DSS-24.
 - Demos will be used to validate the stations capabilities and verify the end to end telecommunication path to the S/C. (12/02/02 12/22/02)
- Operational demos will be the first project tracking pass scheduled post return to ops for DSS-24 12/23/02.





Project Interface Testing

- Project Interface Tests are performed to verify project interfaces with the NSP implementation as well as system capabilities, communication path, and mission ground data systems.
- Demonstration passes (demos) are also planed.
 - Demos will be used to validate the stations capabilities and verify the end to end telecommunication path to the S/C
- In the case of the NSP all data types for Telemetry, Command, Radio Metric and Monitor data are involved.
- Because the NSP implementation interacts directly with flight project software, it will be necessary to conduct these tests with involvement of both the project and the DSN.





PIT /Demos scheduling process

- The NOPE coordinates with the project and project scheduling office.
 - The NOPE as the interface to the project, coordinates with the project and DSN resources required to support the tests.
- In the case of NSP all scheduling will be coordinated through the project scheduling office.
- The project scheduler schedules the PIT and Demos through normal DSN scheduling processes.

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PIT /Demos scheduling process

- List of missions
- ACE,MAP,Voyager,SOHO,Polar,IMAGE,CHANDRA,SIRTF,CASSINI,CLUSTER,
- MO,MGS,STARDUST,Geotail,ULYSSES,TDRS,SOHO,GENESIS,CONTOUR,
- WIND, INTEGRAL, MUSES-C, MER, MEX, ROSETTA





26-Meter D3.1

Art Landon 7/18/02





26-meter D3.1

- Purpose:
- To transition project customers that utilize the current 26-meter support and interface systems for data services into the 26-meter automation support equipment and interfaces to provide data services. Generally, this will be accomplished through the appropriate testing utilizing Project interface Testing (PITs), standalone demonstrate tracking passes and in parallel demonstrate tracking passes where an existing tracking support is in parallel to the 26-meter station





26-meter D3.1

- **Time frame for plan completeness**: Mission transition is 90 days from start of D3.1 soak.
 - DSS-16 when into soak 1/15/02
 - DSS-66 to install D3.1 on or about 8/1/02. Project testing to start on or about 8/5/02.
 - DSS-46 Currently working on the installation of D3.1 on or about 8/1/02. Project testing anticipated to start on or about 8/5/02
- **Scheduling:** The project scheduling office will schedule all Pits and demonstration passes with concurrence from the Network Operations Project Engineer (NOPE).
- **Test coordination:** The NOPE and the appropriate Flight Operation Team (FOT) lead or Ground Systems Test (GDS) engineer at the Project Operations Control Center (POCC) will coordinate all test activities pertaining to this plan.





26-Meter D3.1

- Missions to be transitioned:
- IMAGE, ACE, Chandra, WIND, POLAR, SOHO, Genesis, Integral, Cluster, TOMS-EP, Radarsat and the GSFC emergency support spacecraft. In general the identified mission will transition upon successful Project Interface Testing (PIT) and/or demonstration tracking passes that are either standalone or parallel. For the GSFC emergency set of project customers the plan is to conduct PITs only at DTF-21 or one of the 26-meter stations. However, in some cases the GSFC emergency set project customer may opt for a demo pass to satisfy transition criteria.

JOINT USERS RESOURCE ALLOCATION PLANNING (JURAP)

Action Item Status From February 12, 2002 RARB

(Resource Allocation Review Board)

David G. Morris

July 18, 2002



Action Item Status

Since Last JURAP:

- Action Items 2 and 12 remain open.
- June 27 Workshop on 2003 2004 Scheduling Issues. AI 12 was addressed and actions were assigned to help resolve the action.



Action Item Summary

<i>AI</i> #	Year	Month(s)	System	Responsible	Due Date	Status
1 2	004	January	MER	J. Erickson	6/1/2002	Closed

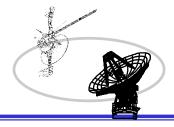
ACTION: Provide Final Landing Site coordinates (SPK file) for both Rovers one year prior to launch. (Reference A.I. #7 of August 13, 2001 RARB)

RESPONSE: (6/4/2002) Due to environmental analysis of the leading candidate landing site regions; MER is initiating a search for potential new, safe, candidate landing sites. "The landing site selection strategy now calls for a selection as late as June 2003. ... MER must have the flexibility to arrive over any DSN complex until that selection is made, and any surface planning must take into account the uncertainty in view periods."

<i>AI</i> #	Year	Month(s)	System	Responsible	Due Date	Status
02	2003	January-December	DSMS P & C	R. Miller	4/18/2002	Open

ACTION: Investigate and Negotiate the feasibility of alternate assets providing current DSN Catalog Maintenance and Enhancement (CAT M&E) radio sources.





Action Item Summary

<i>AI</i> #	Year	Month(s)	System	Responsible	Due Date	Status
03	2003	January-December	SGP	N. Lacey P. Wolken	4/18/2002	Closed

ACTION: As a result of recommending deletion of the entire 2003 request of Space Geodesy Program, provide a listing of opportunities to the Project to assist in their re-planning a reduced (hours) experiment.

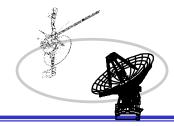
RESPONSE: (4/16/02) The deletion of the 34H Antenna Controller Replacement tasks in 2003 has created 24-hour support opportunities for SGP as follows:

DSS-15: Weeks 14, 15, 16, 17 and 18 (April 2 through May 6).

DSS-45: Weeks 37, 38, 39, 40, 41, 42 and 43 (September 10 through October 28).

DSS-65: Weeks 37, 38, 39, 40, 41, 42 and 43 (September 10 through October 28).





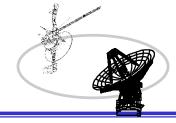
Action Item Summary

<u> </u>	Year	Month(s)	System	Responsible	Due Date	Status
04	2003	January	SIRTF	P. Beyer	4/1/2002	Closed

ACTION: Perform telecom analysis to determine the adequacy of DSS-63 supporting spacecraft on day of launch. The expressed concern is that the DSS-63 X-band transmitter may saturate the SIRTF receiver. (DSS-65 has Downtime; DSS-54 is supporting Cassini GWE.)

RESPONSE: (4/4/02) Using 200 Watts from DSS-63, the P_{total} into the Observatory will be -78 to -80 dBM. This should pose no risk to the spacecraft. HOWEVER, if the trajectory is the slightest bit off nominal, it is not good engineering practice to do a search with the 70m beamwidth. The 34m antenna is much more desirable for contingency purposes, and SIRTF should have priority use of DSS-54.





Action Item Summary

<u> </u>	Year	Month(s)	System	Responsible	Due Date	Status
05	2003	January-April	DSN	M. Wert	4/1/2002	Closed

ACTION: Investigate the impact to Operations of deleting or reducing the 70m Antenna Calibrations in this period.

RESPONSE: (4/10/02) Minimum support has been analyzed and is provided:

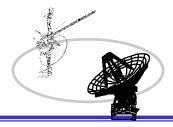
- 1. GDSCC -- DSS14 can support forecast load if two 4-hour calibration blocks per month are provided Jan-Apr '03;
- 2. CDSCC -- DSS-43 can support at one 4-hour calibration block per month during Jan-Apr '03;
- 3. MDSCC -- DSS-63 can support at one 4-hour calibration block per month during Jan-Apr '03.

<u> </u>	‡ Year	Month(s)	System	Responsible	Due Date	Status
6	2003	November	MER-A,Odys	ssey J. Erickson	5/1/2002	Closed

ACTION: MER-A agreed to modify DSN requests for Odyssey and MGS to fulfill required support in Weeks 46-47 in November 2003.

RESPONSE: (6/4/02) MER-A has reduced requirements on the 70M subnet in this period.





Action Item Summary

<u> </u>	Year	Month(s)	System	Responsible	Due Date	<u>Status</u>
07	2003-2004	December-February	Mars Program	C. Whetsel	5/1/2002	Closed

ACTION: Mars Program will evaluate support problems during the mid-December 2003 through end of February 2004 timeframe. All NASA and non-NASA Mars missions requirements will be evaluated and coordinated in light of the NASA Mars mission priorities and provided in time to be addressed at the August 2002 RARB.

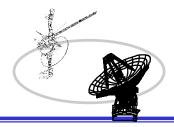
RESPONSE: (4/26//02) Weekly priorities were established for all Mars Missions for this period.

<u> </u>	Year	Month(s)	System	Responsible	Due Date	Status
08	2004	January	Cassini	B. Mitchell	5/1/2002	Closed

ACTION: Cassini, based upon the recommendations of taking daily 1-4 hour gaps during the Canberra/Madrid overlap in January 2004, will evaluate impact to GWE. In addition, evaluate sliding the entire 40 days for the GWE earlier by a few weeks.

RESPONSE: (5/14/02) Cassini will move the GWE to begin October 20, 2003 through November 29, 2003.





Action Item Summary

<u> </u>	Year	Month(s)	System	Responsible	Due Date	Status
09	2004	January	MER-B	J. Erickson	4/18/2002	Closed

ACTION: Mars Exploration Rover Project will evaluate whether MER-B can reduce coverage during critical MER-A TCMs (4, 5, and 6) in order that the support is used for a MER-A required hotbackup 34m antenna.

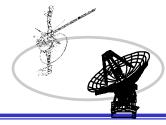
RESPONSE: (6/4/02) MER-B has reduced support in week 52 from 21 to 18 passes per week. This should provide the requested reduction.

<i>AI</i> #	Year	Month(s)	System	Responsible	Due Date	Status
10 20	004	January	DSN	C. Jacobs	4/18/2002	Closed

ACTION: Provide analysis of impact (e.g., to MER-B landing accuracy) of moving DSN Clock Sync VLBI out to Week 4.

RESPONSE: (5/1/02) Provided a prioritized alternative support decision tree to assist scheduling of DSN Clock Sync and Catalog M&E activates in order to maintain minimum support.





Action Item Summary

<i>AI</i> #	Year	Month(s)	System	Responsible	Due Date	Status
11	2004	January	MER	J. Ludwinski	2/26/2002	Closed

ACTION: Provide MER Project Surface Operations Viewperiods for the four primary and two alternate landing sites to RAPSO (J. Kehrbaum).

RESPONSE: Complete set of viewperiods were provided 8 March 2002.

<u> </u>	Year	Month(s)	System	Responsible	Due Date	Status
12	2003-2004	November-February	DSMS P & C	R. Miller	5/1/2002	Open

ACTION: Identify Risk Posture for individual mission's key events to plan steps the DSN can do to mitigate foreseeable anomalies (e.g., spacecraft emergency, station outages, MCD3 contention, etc.).



JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



Resource Analysis Team

July 18, 2002

Kevin Kim

Interplanetary Network Directorate DEEP SPACE MISSION SYSTEMS (DSMS)



◆ RESOURCE NEGOTIATION STATUS

- 2002 WEEKS 33 36 (THRU 09/08/2002) WAS RELEASED TO DSN ON 06/24/2002
- 2002 WEEKS 37 40 (THRU 10/06/2002) IS DUE TO BE RELEASED ON 07/29/2002
- 2003 WEEKS 01 04 (THRU 01/26/2003) WILL GO INTO NEGOTIATIONS STARTING 07/26/2002

07/19/2002 <u>KK-2</u>

Interplanetary Network Directorate DEEP SPACE MISSION SYSTEMS (DSMS)





- **♦ ON-GOING ACTIVITIES**
 - MADB/TIGRAS TESTING AND TRAINING
 - DOWNTIME REPLANNING
 - LUNAR-A LOAD STUDY
 - MCD3 STUDY
 - MESSENGER LOAD STUDY

Interplanetary Network Directorate DEEP SPACE MISSION SYSTEMS (DSMS)





- CONTENTIONS TO COVER MAY 2003 THRU DECEMBER 2005
- REQUIREMENTS / EVENTS DATABASE UPDATE COMPLETE
- ANALYSIS STARTED
- REDBOOK 1.0 PRELIMINARY TO BE POSTED ON RAPWEB BY CLOSE OF BUSINESS MONDAY 07/22/2002

HTTP://RAPWEB.JPL.NASA.GOV

DSN User / Mission Planning Set 2002 - 2012

ONGOING/PLANNED PROJECTS								
Project	Acronym	Launch or Start	EOPM	EOEM				
Reference Frame Calibration	DSN							
DSS Maintenance	DSS							
European VLBI Network	EVN							
Ground Based Radio Astronomy	GBRA							
Space Geodesy	SGP							
Pioneer 10 ACS	PN10	03/03/72	07/01/97	09/30/08				
Voyager 2	VGR2	08/20/77	10/15/89	12/31/05				
Voyager 1	VGR1	09/05/77	12/31/80	12/31/05				
Goldstone Solar System Radar	GSSR	04/01/85						
Galileo	GLLO	10/18/89	12/07/97	09/21/03				
Ulysses	ULYS	10/06/90	09/11/95	09/30/04				
ISTP - Geotail	GTL	07/24/92	07/24/95	09/30/05				
ISTP - Wind	WIND	11/01/94	11/01/97	09/30/05				
ISTP - SOHO	SOHO	12/02/95	05/02/98	12/30/05				
ISTP - Polar	POLR	02/22/96	08/23/97	09/30/05				
Gravity Probe B	GPB	06/01/96	01/01/05	TBD				
Mars Global Surveyor	MGS	11/07/96	02/01/01	06/01/04				
Advance Composition Explorer	ACE	08/25/97	02/01/01	01/31/05				
Cassini	CAS	10/15/97	06/30/08	06/30/10				
Nozomi (Planet-B)	NOZO	07/03/98	12/31/05	TBD				
Stardust	SDU	02/07/99	01/14/06					
Chandra X-ray Observatory	CHDR	07/23/99	07/24/09	07/24/14				
Imager for Magnetopause-to-Aurora Global Exploration	IMAG	03/25/00	05/30/02	05/30/04				
Cluster 2 - S/C #2 (Samba)	CLU2	07/16/00	02/15/03	09/19/05				
Cluster 2 - S/C #3 (Rumba)	CLU3	07/16/00	02/15/03	09/19/05				
Cluster 2 - S/C #1 (Salsa)	CLU1	08/09/00	02/15/03	09/19/05				
Cluster 2 - S/C #4 (Tango)	CLU4	08/09/00	02/15/03	09/19/05				
2001 Mars Odyssey	M01O	04/07/01	08/01/04	09/19/07				
Microwave Anisotropy Probe	MAP	06/30/01	10/01/03	10/01/06				
Genesis	GNS	08/08/01	09/08/04					
Mission Enhancement by Ground-based Astronomy	MEGA	02/01/02	12/31/03					
Comet Nucleus Tour (CONTOUR)	CNTR	07/03/02	09/05/08	TBD				
International Gamma Ray Astrophysics Lab	INTG	10/17/02	12/18/04	12/18/07				
MUSES - C	MUSC	12/01/02	06/05/07					
Space Infrared Telescope Facility	STF	01/09/03	04/19/08					
Rosetta	ROSE	01/13/03	07/10/13					

DSN User / Mission Planning Set 2002 - 2012

Mars Express Orbiter	MEX	05/23/03	02/11/06	08/03/08
Mars Exploration Rover - A	MERA	05/30/03	04/06/04	05/11/04
Mars Exploration Rover - B	MERB	06/25/03	04/27/04	06/15/04
Deep Impact	DIF	01/02/04	08/05/05	
Messenger	MSGR	03/10/04	04/06/10	
Space Technology 5	ST5	07/15/04	10/15/04	TBD
RadioAstron*	RADA	06/15/05	06/15/10	TBD

^{*} Planning dates

DSN User / Mission Planning Set

2002 - 2012

ADVANCED PLANNING PROJECTS								
Project	Acronym	Launch or Start	EOPM	EOEM				
Lunar - A	LUNA	08/09/03	07/18/04					
Selene	SELN	07/04/05	09/30/06					
Mars Reconnaissance Orbiter	MRO	08/08/05	11/26/08	12/31/10				
Stereo Ahead	STA	11/15/05	02/18/08	02/15/11				
Stereo Behind	STB	11/15/05	02/18/08	02/15/11				
Dawn	DAWN	05/27/06	07/26/15	TBD				
Kepler	KPLR	10/15/06	10/14/10	TBD				
Mars Competed Scout 2007	M07S	09/04/07	08/19/08	TBD				
Mars CNES Premier Orbiter 2007	M07O	09/11/07	08/11/08	08/12/10				
Mars ASI/NASA Marconi Telecommunications Orbiter 2007	M07T	08/23/07	07/18/18	TBD				
Mars ASI/NASA Science Orbiter 2009	M09O	10/04/09	08/29/12	TBD				
Mars Smart Lander 2009	M09L	10/25/09	08/09/13	TBD				
Solar Probe	SOLP	05/01/10	02/14/14	TBD				
ARISE	ARSE	06/15/10	06/15/15					
Highly Advanced Laboratory for Communications and Astronomy	VSP2	06/15/10	06/15/15					
Mars CNES MSR Lander 2011	M11L	10/30/11	09/10/14	TBD				
Mars CNES MSR Orbiter 2011	M110	10/30/11	07/22/14	TBD				

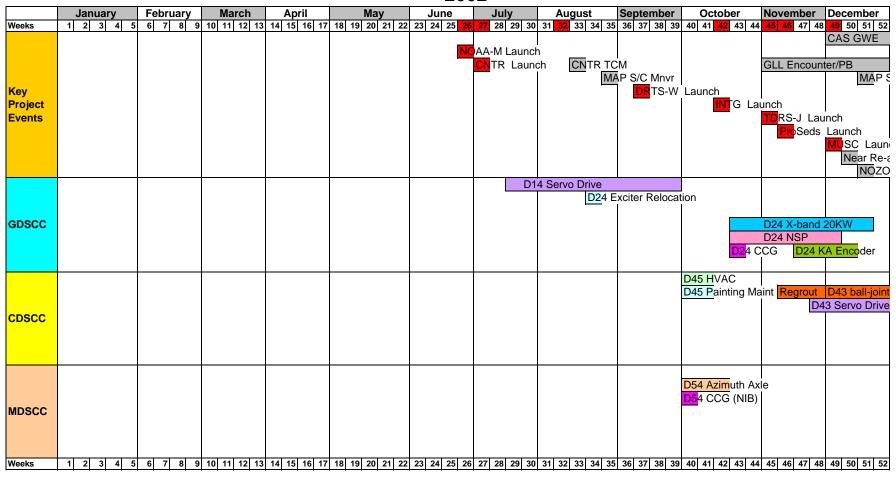
	DSN Resource Implementation Planning Matrix										
Station	Subnet	Delivery Date	S-Band Down	S-Band Up	X-Band Down	X-Band Up	20kW X-Band	Ka-Band Down	Ka-Band Up	NSP	
DSS-14	70M	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	TBD	N/A	05/13/03	
DSS-15	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	XXXX	TBD	N/A	04/10/03	
DSS-16	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A	
DSS-24	34B1	XXXX	XXXX	XXXX	XXXX	12/23/02	12/23/02	10/01/05	N/A	12/23/02	
DSS-25	34B2	XXXX	N/A	N/A	XXXX	XXXX	09/01/03	XXXX	XXXX	03/10/03	
DSS-26	34B2	04/02/03	N/A	N/A	04/02/03	04/02/03	04/02/03	04/02/03	N/A	04/02/03	
DSS-27	34HSB	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A	
DSS-34	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	04/07/03	01/01/05	N/A	04/07/03	
DSS-43	70M	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	TBD	N/A	02/10/03	
DSS-45	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	XXXX	TBD	N/A	05/03/03	
DSS-46	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A	
DSS-54	34B1	XXXX	XXXX	XXXX	XXXX	XXXX	09/01/03	08/01/06	N/A	05/13/03	
DSS-55	34B2	11/01/03	N/A	N/A	11/01/03	11/01/03	11/01/03	11/01/03	N/A	11/01/03	
DSS-63	70M	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	TBD	N/A	04/21/03	
DSS-65	34HEF	XXXX	XXXX	N/A	XXXX	XXXX	XXXX	TBD	N/A	02/10/03	
DSS-66	26M	XXXX	XXXX	XXXX	N/A	N/A	N/A	N/A	N/A	N/A	

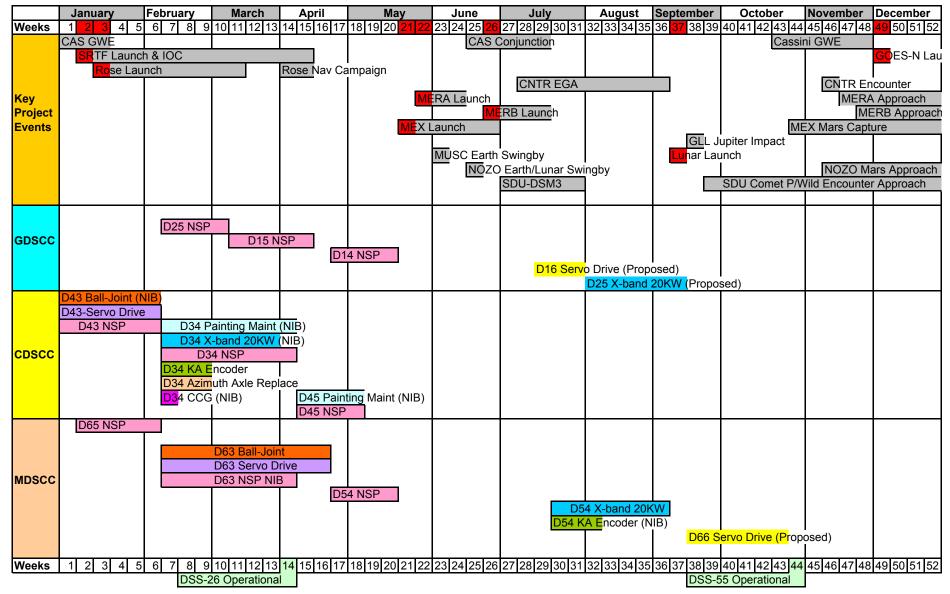
XXXX = Capability Currently Exists

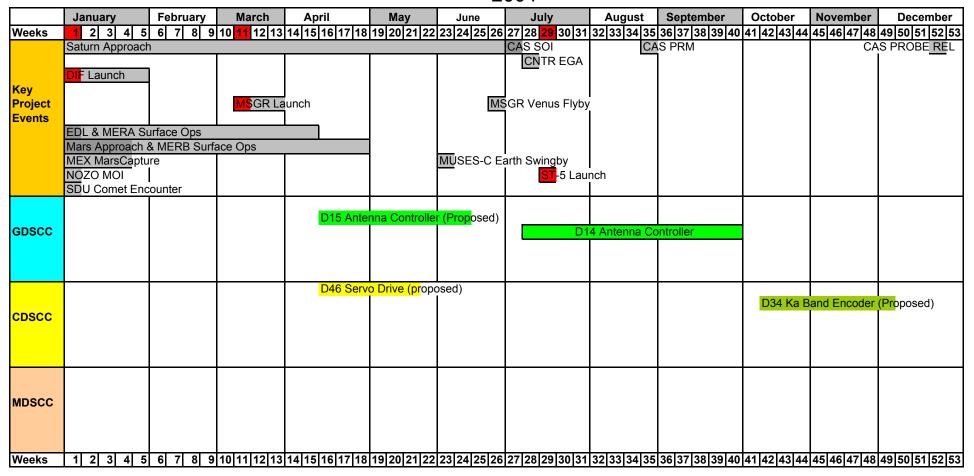
N/A = Capability Not Planned

06/25/02

	MAJOR DSN DOWNTIMES by DATE									
-										
The latest update is on:7/11/02 8:21:00 AM										
 		*The highlighted portion i	indicates the	e last chanç	ge made.					
Year	Site	Description	Start	End	Duration (Days)	Weeks	Start DOY	End DOY		
\vdash					+ +					
						I				
2002	DSS 14	70M Servo Drive Replacement	07/15/02	09/27/02	75	29-39	196	270		
2002	DSS 24	Exciter Relocation	08/21/02	08/25/02	5	34-34	233	237		
2002		NIB - KA Band Encoder Mech Mod Kit Installation	10/01/02	10/20/02	20	40-42	274	293		
2002		Azimuth Axle Replacement	10/01/02	10/20/02	20	40-42	274	293		
2002 2002		DSS 45 HVAC Upgrade NIB - CCG task	10/01/02 10/01/02	10/08/02 10/07/02	8 7	40-41 40-41	274 274	281 280		
2002		NIB - CCG task NIB - Painting Maintenance	10/01/02	10/07/02	8	40-41	274	280		
2002		NIB - NSP Implementation	10/01/02	12/02/02	43	43-49	294	336		
2002	DSS 24	20 KW X-Band TXR Installation	10/21/02	12/22/02	63	43-51	294	356		
2002	DSS 24	NIB - KA-Band Encoder Mech Mod-Kit Installation	10/21/02	11/09/02	20	43-45	294	313		
2002		NIB - CCG Task	10/21/02	10/27/02	7	43-43	294	300		
2002	DSS 43	Hydrostatic Bearing Regrout	11/17/02	11/24/02	8	46-47	321	328		
2002 2002		70M Servo Drive Replacement NIB - Ball-Joint Pad Refurbishment	11/25/02 11/25/02	02/09/03	77 77	48-06 48-06	329 329	040 040		
2002	الان الان الان الان الان	ישי - המוו-סטוות ו מע הכועוטואוווופווע	11/23/02	02/09/03	11	+0-00	J∠∀	040		
2003	DSS 43	NIB - NSP Implementation	01/02/03	02/09/03	39	01-06	002	040		
2003	DSS 65	NSP Implementation	01/07/03	02/09/03	34	02-06	007	040		
2003	DSS 63	70M Servo Drive Replacement	02/10/03	04/20/03	70	07-16	041	110		
2003	DSS 63	NIB - Ball-Joint Pad Refurbishment	02/10/03	04/20/03	70	07-16	041	110		
2003		NIB - NSP Implementation	02/10/03	04/06/03	56	07-14	041	096		
2003		NSP Implementation	02/10/03	03/09/03	28 56	07-10 07-14	041 041	068 096		
2003		NSP Implementation NIB - 20 KW X-Band TXR Installation	02/10/03	04/06/03	56	07-14 07-14	041 041	096		
2003		NIB - KA-Band Encoder Mech Mod-Kit Installation	02/10/03	03/02/03	21	07-14	041	061		
2003		NIB - Azimuth Axle Replacement	02/10/03	03/02/03	21	07-09	041	061		
2003	DSS 34	NIB - CCG Task	02/10/03	02/16/03	7	07-07	041	047		
2003	DSS 34	NIB - Painting Maintenance	02/10/03	04/06/03	56	07-14	041	096		
2003		NSP Implementation	03/10/03	04/09/03	31	11-15	069	099		
2003 2003		NSP Implementation	04/07/03	05/02/03 05/02/03	26 26	15-18 15-18	097 097	122 122		
2003		NIB - Painting Maintenance NSP Implementation	04/07/03	05/02/03	26	15-18 17-20	111	132		
2003		NSP Implementation	04/21/03	05/12/03	22	17-20	111	132		
2003		Servo Drive - PROPOSAL	07/14/03		21	29-31	195	215		
2003	DSS 54	20 KW X-Band TXR Installation	07/21/03	08/31/03	42	30-35	202	243		
2003		20 KW X-Band TXR - PROPOSAL	08/04/03	09/14/03	42	32-37	216	257		
2003	DSS 66	Servo Drive - PROPOSAL	09/15/03	10/26/03	42	38-43	258	299		
2004	D00 45	Antonna Controllor Banlasament - BBCBCCAL	04/40/04	06/40/04	60	16.04	100	105		
2004		Antenna Controller Replacement - PROPOSAL Servo Drive - PROPOSAL	04/12/04 04/12/04		63 42	16-24 16-21	103	165 144		
2004		Antenna Controller Replacement	04/12/04		91	28-40	187	277		
2004		Ka Encoder (Electronic) - PROPOSAL	10/11/04	11/28/04	49	42-48	285	333		
		,								
2005		Antenna Controller Replacement - PROPOSAL	02/21/05	04/10/05	49	08-14	052	100		
2005		Antenna Controller Replacement - PROPOSAL	04/18/05	06/05/05	49	16-22	108	156		
2005		Antenna Controller Replacement - PROPOSAL	06/27/05	08/14/05	49	26-32	178	226		
2005 2005		Antenna Controller Replacement - PROPOSAL Ka Encoder (Electronic) - PROPOSAL	08/22/05 08/29/05	10/09/05 10/09/05	49 42	34-40 35-40	234 241	282 282		
2005	DOO 24	NA EHOUGE (EIGGIOHIG) - FROFUSAL	00129105	10/09/05	44	JJ-4U	Z# I	202		
				_						
								<u> </u>		

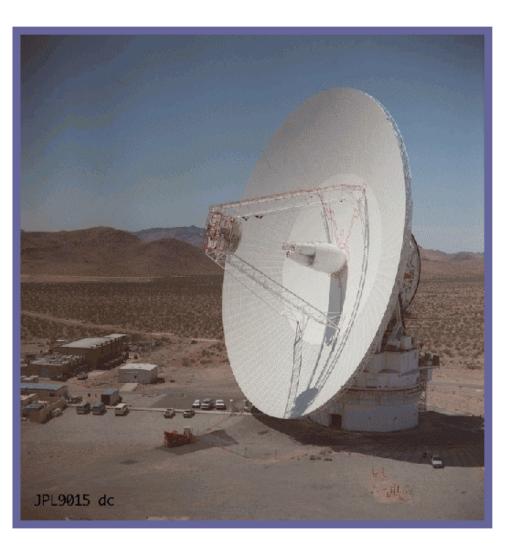






	2000														
	Ja	anuary		Februa		March	April	May	June	July	August	September	October	November	December
Weeks		2 3	4	5 6	7 8	9 10 11 12 13	14 15 16 17	18 19 20 21	22 23 24 25 26	27 28 29 30	31 <mark>32</mark> 33 34	35 36 37 38 39	40 41 42 43	44 <mark>45</mark> 46 47	48 49 50 51 52
	CN	CAS Pro TR EGA E Earth F	١						DII	F Comet Encc SELN Launci		inch		STA STB	
GDSCC												D24 Ka Encoder	(Proposed)		
CDSCC										D43 Antenn	a Controller (Pro	posed) <mark>D45 Antenna Co</mark>	<mark>ontroller (Pro</mark> pose	ed)	
MDSCC					D65	Antenna Controller		tenna Controller	(<mark>Pro</mark> posed)						
Weeks	1	2 3	4	5 6	7 8	9 10 11 12 13	14 15 16 17	18 19 20 21	22 23 24 25 26	27 28 29 30	31 32 33 34	35 36 37 38 39	40 41 42 43	44 45 46 47	48 49 50 51 52

Goldstone Solar System Radar



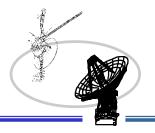
Martin A. Slade
July 18, 2002

NASA Jet Propulsion Laboratory

Joint Users Resource Allocation Planning Committee Meeting



Goldstone Solar System Radar (GSSR)



- On June 27, 28, and 29, the GSSR performed successful observations of near-Earth asteroid 1992FE.
- New observations have been accepted by the science referees for again using the combination of Goldstone transmitting and the Green Bank 100-m Telescope (GBT) receiving to obtain observations of Mercury in support of MESSENGER Project goals of refining the obliquity of Mercury's pole and the forced 88-day wobble in longitude. The requested dates are:

DOY YEAR DATE SOA BOT EOT EOA "Magic Time"

005 2003 JAN 05 1600 1730 1930 2000 (Must include 18:56)

006 2003 JAN 06 1600 1730 1930 2000 (Must include 18:51)

013 2003 JAN 13 1530 1700 1900 1930 (Must include 18:15)

023 2003 JAN 23 1500 1630 1830 1900 (Must include 17:25)

(Please note that the "must include" is really "must receive at", and therefore "must transmit" also 10-15 minutes prior to that time.)



Joint Users Resource Allocation Planning Committee



RADIO ASTRONOMY AND SPECIAL ACTIVITIES

George Martinez July 18, 2002

Pasadena Operations Program Services



TEMPO

(Time and Earth Motion Precision Observations

- Clock Sync
 - DOY 163
 - No problems were reported by DSS-15.
 - DSS-65 lost EAC/APA2 interface.
 - Data tapes sent to the JPL Correlator for processing.
 - DOY 176
 - No problems were reported by DSS-15.
 - DSS-65 experienced an ASC problem.
 - Data tapes sent to the JPL Correlator for processing.
- Metrics
 - 91% of data time utilized.

Pasadena Operations Program Services



Space Geodesy Program (SGP)

IVS-CRF-14

- These are astrometric observations to strengthen the international celestial reference frame (ICRF) in the Southern Hemisphere by observing ICRF defining and candidate sources.
- No problems were reported by DSS-45.
- Data tapes sent to Bonn Correlator.

IVS-T2006

- The objective of the IVS-T2 sessions is to monitor the Terrestrial Reference Frame (TRF) via monthly sessions. All geodetic stations participate in at least three T2 sessions each year. These sessions replace the IRIS-S sessions observed in previous years.
- No problems were reported by DSS-45.
- Data tapes sent to Bonn Correlator.

Metrics

100% of data time utilized.

Pasadena Operations Program Services



Gravity Probe-B (GPB)

BR080B

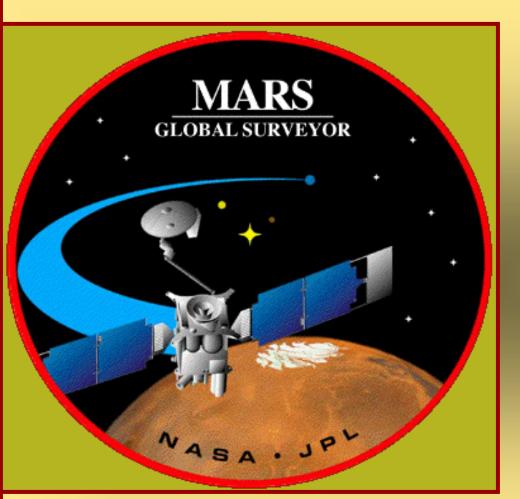
- Second epoch to observe the source HR8703, which will be used as a guide star for the Gravity Probe-B mission. This radio source is being observed for extremely accurate position (Astrometry) and measurement of its proper motion in an inertial frame. Only Astrometric VLBI can yield this accuracy.
- No data loss was reported by either DSS-14, DSS-43, or DSS-63.
- Data tapes sent to Socorro Correlator.

Metrics

100% of data time utilized.

Mars Global Surveyor

Flight Operations Status

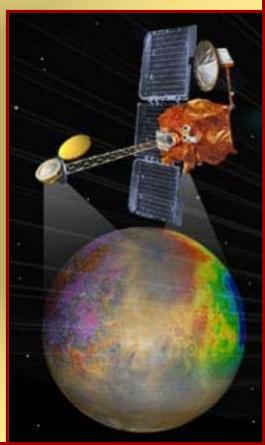


Presentation to the

Joint Users Resource Allocation Planning (JURAP) Meeting



E. E. Brower
July 18, 2002



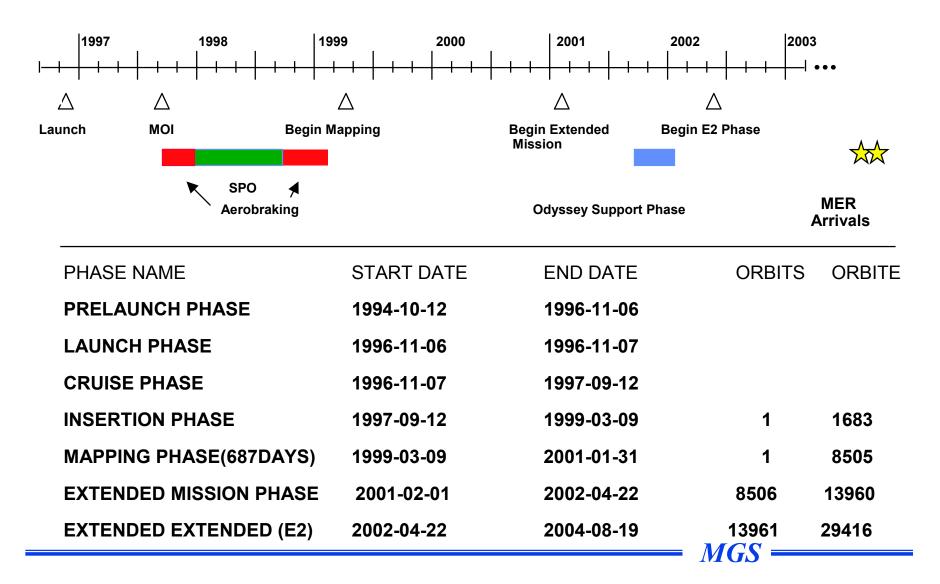
http://mars.jpl.nasa.gov/missions/present/globalsurveyor.html

Mars Global Surveyor AGENDA

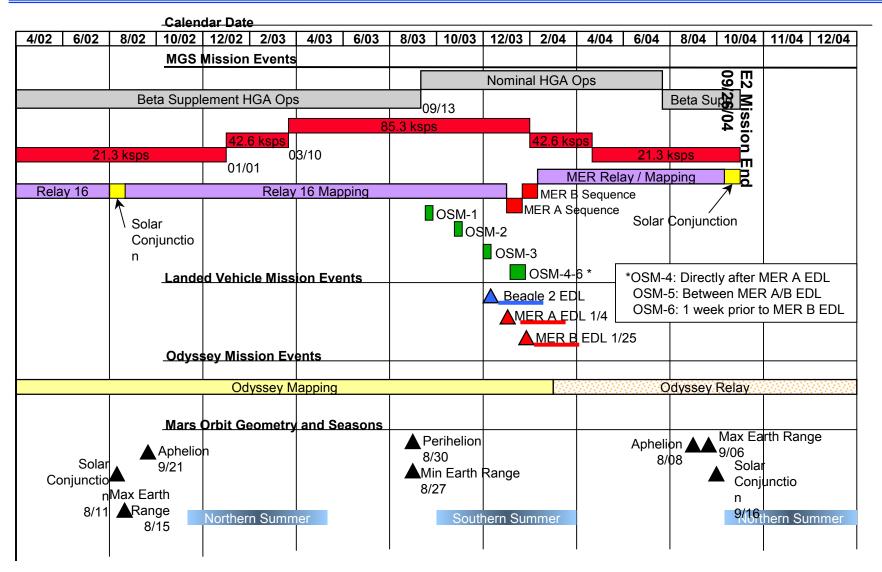
- Project Snapshot
- Recent Events/Accomplishments
- Mission Assessment
- Comments

MGS

Mars Global Surveyor Project Snapshot



Mars Global Surveyor E2 Mission Timeline



Mars Global Surveyor

Program / Project Status

TechnicalScheduleResourcesProgrammaticMAR APR MAY JUNEMAR APR MAY JUNEMAR APR MAY JUNEMAR APR MAY JUNE

Detailed Description: (for items identified as yellow or red)

Technical:

Schedule:

Resources:

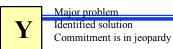
Programmatic:

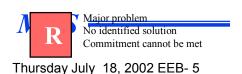
NOTE: This is a rolling 4-month picture

July 2002 JURAP

No current problem

All commitments can be met





Mars Global Surveyor

Events

Last 3 Months:

 End of extended mission (E1) 	APR 22
 E2 Mission start 	APR 22
 E1 first half Archive Complete 	APR 30
- MOC Focus Tests	MAY 11-2

ROTOs from Relay 16 w/o nadir
 MAY 25

MOT TestPSG/MMRJUN 21,26JUL 9-10

Next 12 Months:

NSP Ranging demonstration
Flex mode check
Solar Conjunction
Medium data rate
JUL 17?
AUG 11
JAN 1, 2003

- MER Launches MAY 30, JUN 24

Mars Global Surveyor Recent Accomplishments

- Completed transition to Beta Supplement/Relay 16 & tested non-comm. ROTO
- Uplinked software patches to prevent STAREX reset nadir induced C-mode entry and processing time gaps
- C-mode and C-mode Lessons Learned Reviews held
- Completed MGS-MER ICD for EDL/Rover UHF relay support
- Released Task and Mission Plans for E2 Mission Phase
- Received PQ approval for E2 phase
- MGS Operations Lessons learned provided to MRO
- Successfully executing ROTO imaging from the Relay-16 attitude without returning through Nadir.
- Began work on Single Gyro Attitude Determination.

MGS

Mars Global Surveyor Mission Assessment

- Spacecraft is in good health.
- Expect to fulfill most extended mission objectives (complete MER site coverage may become E2 mission objective).
- Expect to satisfy MER EDL Requirements.
- Chances of operation through 2004 are good.

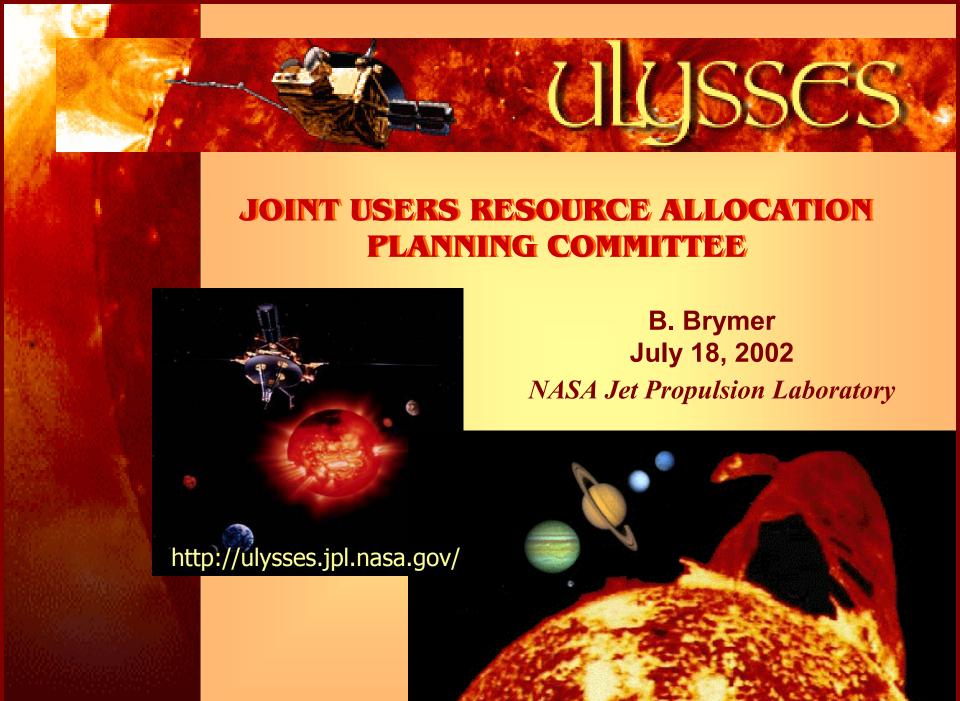
MGS

Mars Global Surveyor

Comments

None







ULYSSES

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

- SPACECRAFT OPERATIONS ARE NOMINAL
- SPACECRAFT POWER AND THERMAL RECONFIGURATIONS AND INSTRUMENT CALIBRATIONS ARE PERFORMED AS REQUIRED
- SPACECRAFT EARTH POINTING MANEUVERS ARE BEING PERFORMED EVERY 4 DAYS



JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE



Brad Compton July 18, 2002



NASA / Jet Propulsion Laboratory

http://galileo.jpl.nasa.gov/



GALILEO MILLENIUM MISSION

ROUTINE ACTIVITIES

- Propulsion maintenance
- Attitude maintenance turn
- Science instrument MROs



GALILEO MILLENIUM MISSION

SIGNIFICANT EVENTS

- Entered solar conjunction.
- Continued collecting Magnetometer, Dust Detector and Extreme Ultraviolet data.
- A command sequence is being executed to condition the tape recorder by moving it with a series of short slews. This will continue throughout the conjunction period.



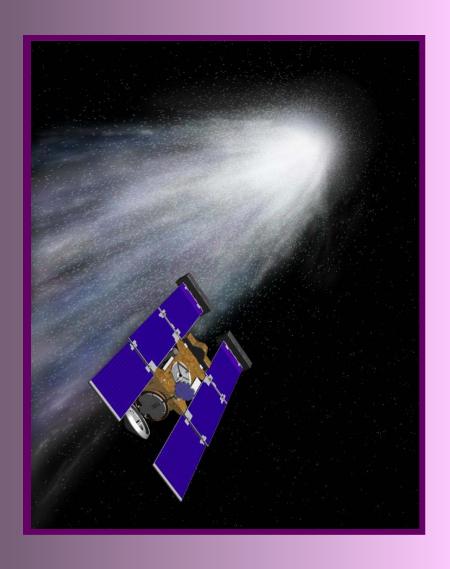
GALILEO MILLENIUM MISSION

PROJECT PLANS

_

- Develop and implement a strategy for the long-term operation of the tape recorder.
- Continue collecting MAG, DDS and EUV data.
- Continue routine activities.
- Next encounter Amalthea 34 on 5 November.





JOINT USERS
RESOURCE ALLOCATION
PLANNING COMMITTEE

R. E. Ryan July 18, 2002

NASA Jet Propulsion Laboratory

http://stardust.jpl.nasa.gov



Report to JURAP

STATUS

SPACECRAFT IS HEALTHY (7/18/02)

PRESENTLY 1.66 AU from EARTH

00:27:30 RTLT

2.64 AU from SUN

SPACECRAFT IS IN CRUISE

- BIT RATE IS AT 1050 bps (on HGA/34 HEF)
- EARTH RANGE CONTINUES TO DECREASE
- SOLAR RANGE REMAINS HIGH
 - THE SOLAR PANELS ARE PERFORMING WELL
 - COMM PERIOD STILL RESTRICTED TO LESS THAN 4 HOURS











Report to JURAP

CURRENT ACTIVITIES

- PLANNING FOR ENCOUNTER TEST AT ANNEFRANK
- NAV CAM NUCLEUS TRACKING S/W TESTING IN PROGRESS
- MMO UPGRADE OF THE GDS F 1.0 SYSTEM (SOLARIS 7.0)
- SWITCHING TO NEW COMMAND SYSTEM THIS WEEK

IPN SUPPORT HAS BEEN GOOD THIS PAST PERIOD

- LOST A DSS 15 SUPPORT ON 7/6 AFTER THE CONTOUR LAUNCH SLIP
- POWER GLITCH IN Bldg 230 SFOF CAUSED LOSS OF COMMAND ON 7/9
 - ADDED BLIND UPLINK ON 7/12 FOR NO-OP CMDS TO RESET CLT
 - PLANNED SEQUENCE UPLINK DELAYED TO BACKUP ON 7/13
- PROJECT HAS EXPRESSED CONCERN THAT THE Bldg 230 UPS SYSTEM UPGRADE NEEDS TO BE MOVED FROM 04 TO EARLY 03 TO REDUCE RISK DURING THE HIGH **ACTIVITY PERIOD IN LATE 03 AND EARLY 04**











Report to JURAP

http://stardust.jpl.nasa.gov

UPCOMING EVENTSSOLAR OPPOSITION, AUGUST 2

INTERSTELLAR DUST COLLECTION 2 SECOND AEROGEL DEPLOY AUGUST 5 TO DECEMBER 9, 2002

TCM 7a - SEPTEMBER 18, 2002

ENCOUNTER TEST AT ANNEFRANK NOVEMBER 2, 2002

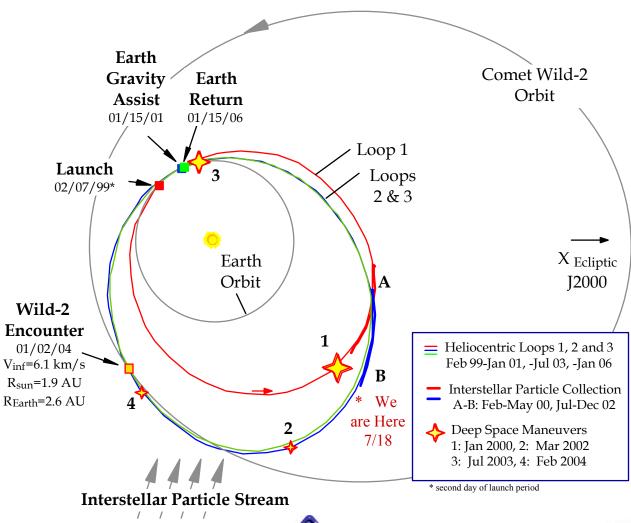








Report to JURAP













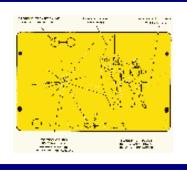
PIONEER 10



Report to

Joint Users Resource Allocation Planning Committee

R. E. Ryan July 18, 2002





PIONEER 10

Report to JURAP

PIONEER 10 STATUS

SPACECRAFT SEEMS TO BE OKAY - 81.7 AU from Earth A ROUNDTRIP CYCLE WAS ATTEMPTED ON JULY 13 to 14

GOLDSTONE

ON JULY 13, DSS 14 TRANSMITTED THE UPLINK AT 191 KW

MADRID

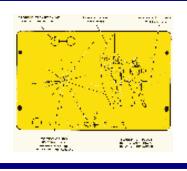
22 HOURS 38 MINS LATER, DSS 63 SAW THE SIGNAL, BUT COULD ONLY GET MOMENTARY LOCKUP ON THE DOWNLINK IN 3 HOURS OF TRYING.
REPORTED SIGNAL LEVEL WAS -185 dbm

•PROBABLY, THE EARTH LOOK ANGLE IS LARGER THAN ESTIMATED PROJECT HAD BEEN CONSIDERING A CONSCAN MANEUVER

IT HAS BEEN 2 YEARS SINCE THE LAST MANEUVER









PIONEER 10 Report to JURAP

PIONEER STATUS

- **•SUPERIOR CONJUNCTION WAS ON JUNE 7**
 - NO ATTEMPT IN MAY OR JUNE
- **•DSS 14 IS NOW OFF THE AIR FROM MID-JULY THROUGH SEPTEMBER**
 - ANTENNA SERVO REPLACEMENT
 - •NEXT PLANNED TRACK IS OCTOBER 11 AND 12
- •PROJECT IS CONSIDERING A MANEUVER FROM DSS 43, OR DSS 14 LATER
 - •LIMITED POWER REQUIRES ALL OTHER SYSTEMS SHUT DOWN SO NO DOWNLINK WOULD BE SEEN

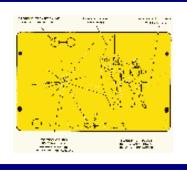
THANKS AGAIN TO THE TRACKING STATIONS, THE NOPES, AND TO ALL WHO PARTICIPATED



http://spaceprojects.arc.nasa.gov/Space Projects/pioneer/PNhome.html

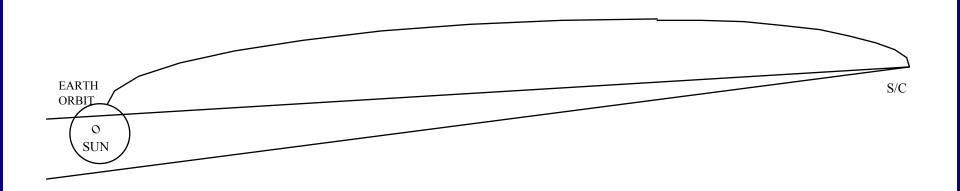


3 of 3





PIONEER 10 Report to JURAP



(HIGHLY INACCURATE) SKETCH OF S/C TRAJECTORY, HIGH-GAIN BEAM CONSCAN (spinning spacecraft) "HOMES IN" (or peaks) ON UPLINK SIGNAL





Joint Users Resource Allocation Planning Committee (JURAP) Meeting



Kenneth Gage

July 18, 2002

Chanara X-Ray Observatory

http://chandra.harvard.edu/index.html







Chandra X-ray Observatory

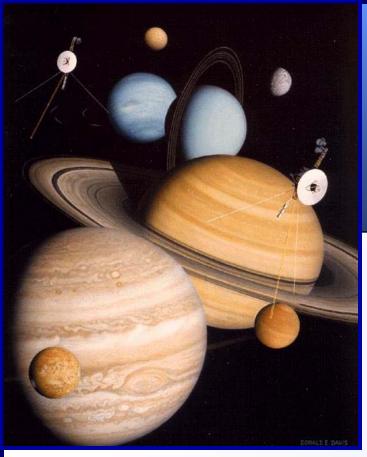
- 26m Automation
 - Full up pass scheduled next week
- Earth Limb Limit test
 - Performed DOY 169 (June 18)
 - "Fullest possible" Earth
 - Excellent results
 - Preliminary results indicate reduction of Earth limb limit by 50% or more may be feasible
 - Additional tests required
 - Timing not as critical





Chandra X-ray Observatory

- IRU Calibration Update
 - Performed DOY 198 (July 17)
 - Required set of 8 maneuvers for checkout of updated parameters
 - Realtime observing of maneuvers was critical



VOYAGER

FLIGHT OPERATIONS

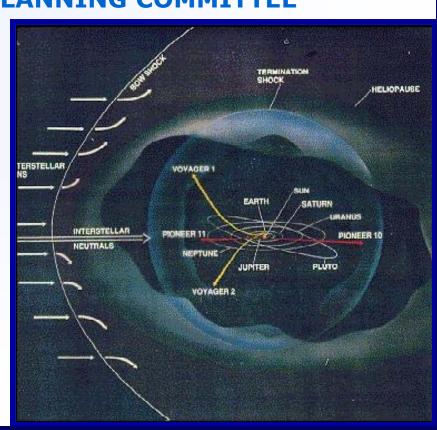
JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

J. C. Hall, Jr.
July 18, 2002

NASA Jet Propulsion Laboratory



http://voyager.jpl.nasa.gov





VOYAGER FLIGHT OPERATIONS



FLIGHT SYSTEM STATUS

MISSION STATUS

VOYAGER 1

- * HELIOCENTRIC DISTANCE 85.3 AU, RTLT 23h29m28s
- * SPACECRAFT REMAINS HEALTHY
- * MAJOR ACTIVITY: ASCAL

VOYAGER 2

- * HELIOCENTRIC DISTANCE 67.7 AU, RTLT 18h30m26s
- * SPACECRAFT REMAINS HEALTHY



VOYAGER FLIGHT OPERATIONS



GROUND SYSTEM STATUS

(June 15, 2002 – July 12, 2002)

- DSN OVERALL SUPPORT GOOD
- On 06/26, [DOY 177], commands radiated by DSS-43 were not received by the spacecraft. Nominal AGC values were seen but no commands were detected. CPA interface problems resulted in erroneous CPA alarms during the uplink period, DR N100508 written.
- On 07/03 [DOY 184] the first two attempts at radiating commands failed. The first failure occurred following the disabling of an erroneous CPA Ext/Xmt off alarm when a CPA shift error alarm caused the first element of a 7-point BLF to abort. The second failure occurred due to the BLF offset not being entered prior to the second attempt of radiating the 7-point BLF. The commands were finally radiated during a fourth attempt and were received by the spacecraft
- On 07/10 [DOY 191] the wrong BLF template was used during a 7 Point BLF. Commands were received by the spacecraft due to the stable nature of the BLF during this commanding incident.



VOYAGER

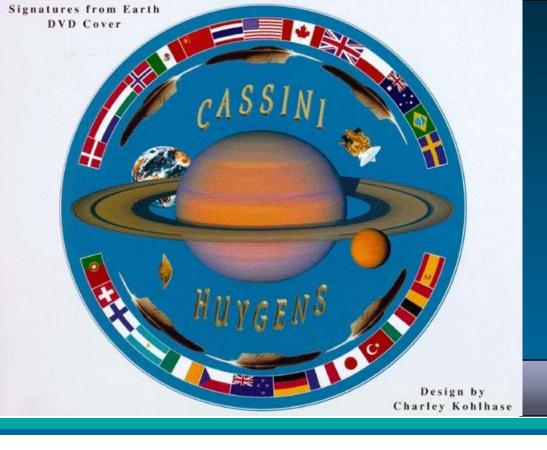
FLIGHT OPERATIONS



TOTAL SUPPORT TIME, OUTAGE TIME, % of OUTAGE TIME

S/C	SCHED SUPPORT	ACTUAL SUPPORT	70M TIME	SIGNIFICANT OUTAGE TIME	% of OUTAGE TIME
31	432.6	436.2	87.1	13.4 (3.4)	3.9
32	330.0	330.1	95.2	1.4 (1.0)	.7

VOYAGER HOMEPAGE - http://voyager.jpl.nasa.gov





http://saturn.jpl.nasa.gov/cassini/index.shtml

Joint Users Resource Allocation Planning (JURAP) Committee Meeting

Dave Doody July 18, 2002

NASA / Jet Propulsion Laboratory



In Space Science Subphase

- Radio Science Superior Conjunction Experiment completed
 - Prime Mission Science, based on dedicated spacecraft H/W, extensive DSN upgrades
 - Objective: test GR with a sensitivity of 1/100,000 (100 times better than previous)
 - Investigators: B.Bertotti (U of Pavia), L.Iess (U of Rome), J.Anderson (JPL)
 - Obtained 71% expected Ka-band, 96% expected X-band RS data
- Conducted engineering test of CMD link while SEP was < 3°
- Space Science observations ongoing, S/C frequently off Earth-point between DSN tracks

Operations

- NOP has been delivered
- Daily ops going well, good DSN support
- Tour Science Planning continues
 - PSG was in Lisbon, Portugal
- Minor S/C instrument adjustments, cals, and anomalies being worked near real time

NSP

- We're considering NSP CMD operational
- TLM, MON tests being scheduled with DTF21 and DSS24/26
- TRK Shadow passes being conducted, need several more for Nav to verify data